

AMENDMENTS TO THE DRAWINGS:

A Replacement Formal Drawing for Figure 7 has been filed concurrently.

REMARKS

In view of the above amendments and following remarks, reconsideration and further examination are requested.

Initially, the Examiner's attention is respectfully directed to the Information Disclosure Statement filed July 13, 2004. The Examiner is respectfully requested to consider this Information Disclosure Statement.

The specification and abstract have been reviewed and revised to make editorial changes thereto and generally improve the form thereof, and a substitute specification and abstract are provided. No new matter has been added by the substitute specification and abstract.

A replacement formal drawing for Figure 7 has been provided which labels this figure as --Prior Art--, as suggested by the Examiner.

In response to the Examiner's objection to claims 5 and 6 as being in improper form for being a multiple dependent claim that depends from another multiple dependent claim, the Examiner's attention is respectfully directed to the Preliminary Amendment filed October 21, 2003, which amended claims 5 and 6 so as to remove the multiple dependency thereof. Accordingly, it is respectfully submitted that claims 5 and 6 were in a proper form for examination, and thus should have been treated on the merits.

The instant invention pertains to a heating drying type infrared radiation moisture meter that comprises a device for determining moisture content of a sample, which device includes a temperature sensor for detecting a temperature of the sample. Such a moisture meter is generally known in the art as depicted in Figure 7 and described on pages 1-2 of the original specification. However, this known moisture meter suffers from a drawback in that the temperature sensor uses a thermistor. Accordingly, the temperature sensor cannot consistently accurately detect a surface temperature of the sample for reasons as expressed on pages 2-4 of the original specification, and thus the moisture content of the sample cannot be accurately determined..

Applicants have addressed and resolved this drawback by providing a unique heating drying type infrared radiation moisture meter that utilizes a radiation thermometer as the temperature sensor. The radiation thermometer detects infrared radiation emitted from a sample being tested, and thus a surface temperature of the sample can be consistently accurately determined, whereby the moisture

content of the sample can be more accurately determined. Claim 9 is believed to be representative of the inventive heating drying type infrared radiation moisture meter.

Claims 1-4 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kaiho et al; claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaiho et al. in view of Spannagel et al; and claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaiho et al. in view of Spannagel et al., and further in view of Bohm. These rejections are respectfully traversed and the references relied upon are not applicable with regard to the newly added claims for the following reasons.

Inasmuch as claim 9 basically corresponds to former claim 1, the rejection of claim 1 will be addressed as it pertains to claim 9. As expressed above, and as required by claim 9, the inventive heating drying type infrared moisture meter includes

...a radiation thermometer for determining a surface temperature of the sample by detecting infrared radiation emitted from the sample.

A heating drying type infrared radiation moisture meter utilizing a radiation thermometer is not taught or suggested by any of the references relied upon by the Examiner.

In finding claim 1 to be anticipated by Kaiho et al., the Examiner took the position that the thermocouple thermometer as expressed in column 4, lines 22-28 of this reference corresponds to the claimed radiation thermometer. However, this thermocouple thermometer does not detect infrared radiation emitted from a sample and thus is not a radiation thermometer, nor does it function as one.

In this regard, as expressed in column 4, lines 22-28 of Kaiho et al., the thermocouple thermometer is for measuring a temperature of air within a chamber, but does not directly measure a surface temperature of a sample within the chamber. Accordingly, the temperature detected by the thermocouple thermometer is not an accurate reflection of the surface temperature of the sample. Thus, use of such a thermocouple thermometer results in the meter of Kaiho et al. suffering from the same drawback as does the known moisture meter as discussed above. As such, the thermocouple thermometer of Kaiho et al. is not, nor is it the equivalent of, the radiation thermometer as recited in claim, whereby claim 9 is not anticipated by Kaiho et al.

With regard to claim 10, this claim is believed to be patentable in its own right, since it requires that the radiation thermometer is

...spaced from the sample by a distance that allows the infrared radiation emitted from the sample to be received by said radiation thermometer.

Because Kaiho et al. does not disclose or suggest a radiation thermometer, the spacing as required by claim 10 cannot reasonably be said to be taught or suggested by this reference. Thus, claim 10 is patentable in its own right over Kaiho et al.

With regard to claim 16, this claim is also believed to be patentable in its own right, since it requires

...a light conducting member...wherein said radiation thermometer is positioned to receive infrared radiation emitted from the sample after this radiation has been guided by said light conducting member.

While lamp 18 of Kaiho et al. is a light conducting member, this light conducting member does not guide infrared radiation emitted from the sample to the radiation thermometer. Thus, claim 12 is patentable in its own right over Kaiho et al.

Similarly, claim 21 is patentable in its own right since it requires the light conducting member to be either a mirror or an optical fiber.

None of the other references relied upon resolve the above deficiencies of Kaiho et al., and accordingly, claims 9-28 are allowable over the references relied upon by the Examiner either taken alone or in combination.

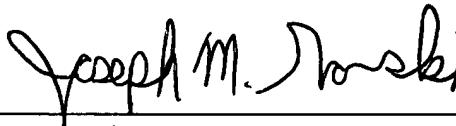
In view of the above amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and an early Notice of Allowance is earnestly solicited.

If after reviewing this Amendment, the Examiner believes that any issues remain which must be resolved before the application can be passed to issue, the Examiner is invited to contact the Applicants' undersigned representative by telephone to resolve such issues.

Respectfully submitted,

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